

Effect of hand tactile stimulation on the vital signs of brain injury patients hospitalized in Qazvin intensive care units, Iran

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*Abstract

Background: Hospitalization in intensive care units (ICUs) results tactile deprivation, which may cause physiologic imbalance.

Objective: This study aimed to investigate the effect of hand tactile stimulation on the vital signs of traumatic head injury patients in Qazvin ICUs.

Methods: This clinical trial study was conducted on sixty patients with severe brain trauma admitted to ICUs in Qazvin, in 2016. The subjects were selected by the convenience sampling method and assigned in two groups of intervention and control. Hands, wrists and palms of patients were touched for 5 minutes twice a day (morning and evening) and vital signs were recorded immediately from the 1st to 5th day of admission. Data were analyzed by the paired and independent t tests.

Findings: According to the results, hand tactile stimulation significantly decreased systolic blood pressure level ($P=0.0001$), diastolic blood pressure ($P<0.05$) and respiration rate ($P<0.05$) in the intervention group. However, tactile stimulation had no significant effect on the body temperature of the patients ($P>0.05$).

Conclusion: As the positive effect of hand tactile stimulation on decrease of heartbeat rate and blood pressure in patients with brain trauma, it is recommended to use tactile stimulation methods on ICUs patients.

Keywords: Touch, Vital signs, Traumatic brain injuries, Sensory deprivation, Intensive care units

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